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TO: USPTO Fax. No.: (703) 872-9306  
Ex.: Valentin, J.D.

FROM: Vangelis Economou, Reg. No. 32,341 - Ladas & Parry (312) 427-1300

DATE: March 26, 2004

RE: U. S. Patent Application No. 09/831,416

Please deliver the attached proposed claims to Ex. Valentin, as soon as possible. A Response to the Office Action dated September 8, 2003 in this application was submitted on December 8, 2003. A copy of the full response and of the Postcard Receipt are transmitted herewith to obtain reinstatement of the application.

Any questions may be directed to the above identified attorney of record.

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DOCKET: CU-2504

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application: John Canning ]

Serial No.: 09/831,416 ]

GRP ART UNIT : 2877 ]

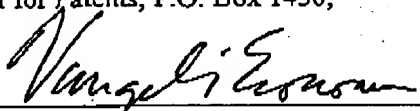
Filed: May 9, 2001 ]

Ex.: Valentin, J.D. ]

For: OPTICAL WAVEGUIDE STRUCTURE ]

Certification under 37 C.F.R. §1.8(a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with The United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 8, 2003.

  
Vangelis Economou, Reg. No. 32,341

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.111

Sir:

In response to the Office Action dated September 8, 2003, please consider the following remarks.

REMARKS

Reconsideration is respectfully requested.

Claims 18, 20-22, 26, 34, 38, 40 and 45 have been rejected under 35 U.S.C. § 102(e) over Tseng et al. (U.S. Patent No. 5,809,188). Further, rejections of the remaining claims also rely on Tseng et al. in obviousness rejections made under 35 U.S.C. § 103(a). Because Tseng et al. fails to teach an important feature and claimed limitation recited in the independent claims, these rejections are respectfully considered to be improper, as discussed in detail below.

Tseng et al. is drawn to a tunable optical fiber filter or reflector, in which a fiber is bent slightly, purely for the purpose of allowing the polishing of the fiber to remove a cladding layer to expose the core region of the fiber. This allows a coating to be applied adjacent to an ordinary Bragg grating which is formed in the core region. The coating has a refractive index, which can be varied by heating, and the variation of the refractive index of the coating adjacent to the grating results in variation of the Bragg condition of the grating to thereby provide the required tunability. The bend in the fiber is specified to have a curvature radius ranging between 400 and 2000 centimeters (see column 2, lines 44-45) and in this regard it should be noted that the dimensions in the figures have clearly been exaggerated in the drawing figures of Tseng et al.

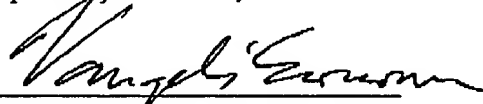
With respect to the features claimed in Claim 1, the grating structure of Tseng et al. is not arranged to guide light around the bend. In particular, it can be seen that the grating is actually located at a portion of the fiber that is straight. Furthermore, the grating actually acts to reflect most of the light and not to guide it around the bend. Furthermore, the radius of curvature of the bend is so large that, even if the light were being guided around the bend, there would be no bending losses and therefore the grating cannot act to reduce bending losses.

Moreover, with respect to the combination of teachings of, for example, Tseng et al. as asserted to be modified by Facq et al. (U.S. Patent No. 5,307,437), it is respectfully submitted that there is no teaching suggestion or incentive to provide such a modification for any of the obviousness objections. In respect of the above example, Applicant respectfully submits it would not be obvious to a person of ordinary skill to make the proposed modification simple because the Bragg diffraction grating used by Tseng et al. is utilized for a different purpose, that is, not for providing a means permitting guiding light around the bend, as in the present invention. Thus, modifying Tseng et al. to extend the optical waveguide structure parallel to the propagation direction would not be a consideration, and one of ordinary skill would not be led to make such a modification.

For the above reasons, it is considered that the claims, as amended, find support in the parent application specification as filed, and that the combination of elements recited in the pending claims, as amended, and in new Claims 35-48 distinguish over the references of record. Accordingly, an indication of allowable subject matter is earnestly solicited.

Respectfully submitted,

December 8, 2003

  
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APPLICANT: John Canning

SERIAL NO: 09/831,416

FILED: May 9, 2001

TITLE: OPTICAL WAVEGUIDE

STRUCTURE

DOCKET: CU-2504 DATE: 12-08-03

